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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,122	10/29/2003	Joseph A. Smith	H0004434	6967

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EXAMINER
ZHE, MENG YAO

ART UNIT	PAPER NUMBER
2195	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Office Action Summary	Application No.	Applicant(s)
		10/696,122	SMITH ET AL.
		Examiner	**Art Unit**	
		MengYao Zhe	2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 to 37* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 to 37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *1/9/2006*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This is the initial Office Action based on the 10/696122 application filed on 10/29/2003.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 to 12 are directed to adjusting pad time value.

This claimed subject matter lacks a practical application of a judicial exception (law of nature, abstract idea, naturally occurring phenomenon) since it fails to produce a useful, concrete and tangible result.

Specifically, as per claim 1, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for adjusting the system pad time only if the actual thread activation time exceeds the thread activation time budget. However, in the case that the actual thread activation time does not exceed the thread activation time budget, nothing is being done, thus the result in not tangible. This produced result

remains in the abstract and, thus, fails to achieve the required status of having real

world value.'

Since claims 2 to 12 are dependent on claim 1, they are rejected as well.

Claim 37 is rejected under 35 U.S.C. 101 because the claims lack the necessary physical

articles or objects to constitute a machine or a manufacture within the meaning of 35

USC 101. They are clearly not a series of steps or acts to be a process nor are they a

combination of chemical compounds to be a composition of matter. As such, they fail to

fall within a statutory category. They are, at best, functional descriptive material *per se.*

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 6, 18, and 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the enablement requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the

invention.

Claim 6 is rejected because it is unclear what a base period is, Although the

specification mentions the use of base period, it does not define what it is.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 to 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Anderson et

al., Patent No. 5,628,013 (hereafter Anderson).

As per claim 1, 37, Anderson claims for a method of apportioning additional

thread activation time to computer application threads that experience activation

time budget overruns, the method comprising:

setting a variable to a system pad time value;

(Column 12, lines 5 to 30; Column 18, lines 44 to 65: pad time value corresponds to

extra margin or the value b, which attempts to account for context switching time and

other overheads. They are included as part of the GPB Estimate.)

activating an application thread for an actual activation time;

(Column 8, lines 15 to 40: actual activation time corresponds to the GPB actual.)

comparing the application thread's actual activation time with its activation time budget;

(Column 10, lines 30 to 45: activation time budget corresponds to the GPB Estimate.)

if the actual thread activation time exceeds the thread activation time budget, adjusting the system pad time value to thereby obtain an updated pad time value

(Column 11, lines 49 to Column 12, line 30; Column 18, lines 45 to 60: GPB Estimate along with its margin or b may be adjusted.)

As per claim 13, it is a system claim, which contains all the necessary components to perform the method steps of claim 1, more specifically, a memory *(Fig 1, unit 112)***, and a processor** *(Fig 1, unit 110)***. Since claims 1 is rejected, claim 13 is rejected as well.**

As per claim 25, it claims for a computer readable medium. It contains all the code that are capable of performing the method steps of claim 1. Since claim 1 is rejected, claim 25 is rejected as well.

As per claim 2, 14, 26, Anderson teaches the method of claim 1, further comprising: setting the variable to the updated pad time value.

(Column 12, lines 5 to 30)

As per claim 3, 15, 27, Anderson teaches the method of claim 2, further comprising: initiating a predetermined response if the updated pad time value is adjusted to a predetermined response initiation value.

(Column 11, Lines 30 to 41: using the larger value is the response)

As per claim 4, 16, 28, Anderson teaches the method of claim 3, wherein the predetermined response initiation value is a value less than zero.

(Column 10, lines 1 to 15; Column 11, lines 30 to 48: when not enough context switching time is accounted for by b or the margin, allotted time overruns, the time remaining would be less than zero due to inaccurate GPB Estimate.)

As per claim 5, 17, 29, Anderson teaches the method of claim 1, further comprising: resetting the variable to the predetermined system pad time value at a predetermined periodicity.

(Column 11, line 65 to Column 12, line 20: improved GPB Estimate, which includes the margin or b, is set whenever a task is unloaded.)

As per claim 6, 18, 30, Anderson teaches the method of claim 5, wherein the predetermined periodicity is a base period of the application being executed.

(Column 10, lines 1 to 15; Column 11, line 65 to Column 12, line 20: the base period

corresponds to the allotted time)

As per claim 7, 19, 31, Anderson teaches the method of claim 1, wherein the

thread activation time budget comprises: a thread execution time; and a thread

pad time. *(Column 18, line 46)*

As per claim 8, 20, 32, Anderson teaches the method of claim 7, further

comprising: subtracting the thread pad time from the thread activation time

budget to obtain an initial thread timer value *(Column 18, line 46: the added margin*

or b must be subtracted from the GPB Estimate to get mx);

initializing a thread timer to the initial thread timer value; and enabling the thread

timer upon activation of the application thread. *(Column 7, lines 15 to 35)*

As per claim 9, 21, 33, Anderson teaches the method of claim 8, further

comprising: disabling the thread timer upon completion of the actual activation

time to thereby obtain a final thread timer value; *(Column 7, lines 15 to 35)*

and adding the thread pad time to the final thread timer value to determine an

activation time difference value between the application thread's actual activation

time and its activation time budget. *(Column 11, lines 15 to 41)*

As per claim 10, 22, 34, Anderson teaches the method of claim 9, wherein the thread timer is operable to decrement from the initial thread timer value to the final thread timer value *(Column 7, lines 15 to 35)*

As per claim 11, 23, 35, Anderson teaches the method of claim 9, further comprising: determining whether the activation time difference value is a positive value or a negative value;

(Column 10, lines 1 to 15: since the remaining time is the difference between the allotted time and the Estimated time, it is inherent that the system as disclosed can judge if the result is positive or negative) **and if the activation time difference is negative, adding the activation time difference value to the system pad time value to obtain an updated pad time value.** *(Column 12, lines 10 to 25: Additional margin is added even if the remaining processing is close to the require processing, it is inherent that it will be added if no remaining time is left, which corresponds to a negative activation time difference.)*

As per claim 12, 24, 36, Anderson teaches the method of claim 1, further comprising: determining whether the updated pad time value a positive value or a negative value; and if the updated pad time value is a negative value, initiating a predetermined response. *(Column 10, lines 1 to 15; Column 11, lines 30 to 48)*

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent No. 6,754,690 to Larson

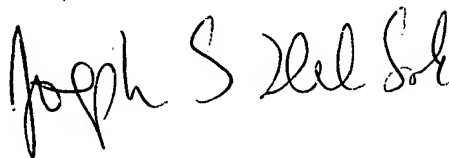US Patent Application No. 2002/0198925 to Smith et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MengYao Zhe whose telephone number is 571-270-1116. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on 571-272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.Z.

JOSEPH DEL SOLE
SUPERVISORY PATENT EXAMINER